## Sequence Listing

- <110> Adams, Camellia W.
   Presta, Leonard G.
   Sliwkowski, Mark X.
- <120> Humanized Anti-ErbB2 Antibodies and Treatment with Anti-ErbB2 Antibodies
- <130> P1467R2
- <141> 2000-06-23
- <150> US 60/141,316
- <151> 1999-06-25
- <160> 13
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- <211> 107
- <212> PRT
- <213> Mus Musculus
- <400> 1
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- Gly Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Ser 20 25 30
- Ile Gly Val Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Lys 35 40 45
- Leu Leu Ile Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Asp
- Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile 65 70 75
- Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln 80 85 90
- Tyr Tyr Ile Tyr Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu
  95 100
- Ile Lys
- <210> 2
- <211> 119
- <212> PRT
- <213> Mus musculus
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- Thr Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Phe Thr Phe Thr 20 25 30

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Asp Tyr Thr Met Asp Trp Val Lys Gln Ser His Gly Lys Ser Leu 35 40 45
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Glu Trp Ile Gly Asp Val Asn Pro Asn Ser Gly Gly Ser Ile Tyr
50 55 60

Asn Gln Arg Phe Lys Gly Lys Ala Ser Leu Thr Val Asp Arg Ser 65 70 75

Ser Arg Ile Val Tyr Met Glu Leu Arg Ser Leu Thr Phe Glu Asp 80 85 90

Thr Ala Val Tyr Tyr Cys Ala Arg Asn Leu Gly Pro Ser Phe Tyr 95 100 105

Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser 110 115

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<211> 107

<212> PRT

<213> artificial

<400> 3

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val 1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser 20 25 30

Ile Gly Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys
35 40 45

Leu Leu Ile Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65 70 75

Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln 80 85 90

Tyr Tyr Ile Tyr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu 95 100 105

Ile Lys

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<211> 119

<212> PRT

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<220>

<221> artificial

<222> 1-119

<223> Fab 574 VH



<210> 5 <211> 107 <212> PRT <213> artificial

<400> 5

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Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser 20 25 30

Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys 35 40 45

Leu Leu Ile Tyr Ala Ala Ser Ser Leu Glu Ser Gly Val Pro Ser 50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65 70 75

Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln 80 85 90

Tyr Asn Ser Leu Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu 95 100 105

Ile Lys

<210> 6 <211> 119

<212> PRT

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 Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
 Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 Glu Trp Val Ala Val Ile Ser Gly Asp Gly Gly Ser Thr Tyr Tyr
 Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
 Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
                  80
                                      85
 Thr Ala Val Tyr Tyr Cys Ala Arg Gly Arg Val Gly Tyr Ser Leu
 Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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<223> unknown amino acid
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<213> Mus musculus
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Lys Gly
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Asn Leu Gly Pro Ser Phe Tyr Phe Asp Tyr
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Gln Gln Tyr Tyr Ile Tyr Pro Tyr Thr
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Leu Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp
Met Lys Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met
Leu Arg His Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu
Glu Leu Thr Tyr Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln
Asp Ile Gln Glu Val Gln Gly Tyr Val Leu Ile Ala His Asn Gln
Val Arg Gln Val Pro Leu Gln Arg Leu Arg Ile Val Arg Gly Thr
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Gln	Leu	Phe	Glu	Asp 110	Asn	Tyr	Ala	Leu	Ala 115	Val	Leu	Asp	Asn	Gly 120
Asp	Pro	Leu	Asn	Asn 125	Thr	Thr	Pro	Val	Thr 130	Gly	Ala	Ser	Pro	Gly 135
Gly	Leu	Arg	Glu	Leu 140	Gln	Leu	Arg	Ser	Leu 145	Thr	Glu	Ile	Leu	Lys 150
Gly	Gly	Val	Leu	Ile 155	Gln	Arg	Asn	Pro	Gln 160	Leu	Cys	Tyr	Gln	Asp 165
Thr	Ile	Leu	Trp	Lys 170	Asp	Ile	Phe	His	Lys 175	Asn	Asn	Gln	Leu	Ala 180
Leu	Thr	Leu	Ile	Asp 185	Thr	Asn	Arg	Ser	Arg 190	Ala	Cys	His	Pro	Cys 195
Ser	Pro	Met	Cys	Lys 200	Gly	Ser	Arg	Cys	Trp 205	Gly	Glu	Ser	Ser	Glu 210
Asp	Cys	Gln	Ser	Leu 215	Thr	Arg	Thr	Val	Cys 220	Ala	Gly	Gly	Cys	Ala 225
Arg	Cys	Lys	Gly	Pro 230	Leu	Pro	Thr	Asp	Cys 235	Cys	His	Glu	Gln	Cys 240
Ala	Ala	Gly	Cys	Thr 245	Gly	Pro	Lys	His	Ser 250	Asp	Cys	Leu	Ala	Cys 255
Leu	His	Phe	Asn	His 260	Ser	Gly	Ile	Cys	Glu 265	Leu	His	Cys	Pro	Ala 270
Leu	.Val	Thr	Tyr	Asn 275	Thr	Asp	Thr	Phe	Glu 280	Ser	Met	Pro	Asn	Pro 285
Glu	Gly	Arg	Tyr	Thr 290	Phe	Gly	Ala	Ser	Cys 295	Val	Thr	Ala	Суѕ	Pro 300
Tyr	Asn	Tyr	Leu	Ser 305	Thr	Asp	Val	Gly	Ser 310	Cys	Thr	Leu	Val	Cys 315
Pro	Leu	His	Asn	Gln 320	Glu	Val	Thr	Ala	Glu 325	Asp	Gly	Thr	Gln	Arg 330
Cys	Glu	Lys	Cys	Ser 335	Lys	Pro	Cys	Ala	Arg 340	Val	Cys	Tyr	Gly	Leu 345
Gly	Met	Glu	His	Leu - 350	Arg	Glu	Val	Arg	Ala 355	Val	Thr	Ser	Ala	Asn 360
Ile	Gln	Glu	Phe	Ala 365	Gly	Cys	Lys	Lys	Ile 370	Phe	Gly	Ser	Leu	Ala 375
Phe	Leu	Pro	Glu	Ser 380	Phe	Asp	Gly	Asp	Pro 385	Ala	Ser	Asn	Thr	Ala 390
Pro	Leu	Gln	Pro	Glu 395	Gln	Leu	Gln	Val	Phe 400	Glu	Thr	Leu	Glu	Glu 405





Ile	Thr	Gly	Tyr	Leu 410	Tyr	Ile	Ser	Ala	Trp 415	Pro	Asp	Ser	Leu	Pro 420
Asp	Leu	Ser	Val	Phe 425	Gln	Asn	Leu	Gln	Val 430	Ile	Arg	Gly	Arg	Ile 435
Leu	His	Asn	Gly	Ala 440	Tyr	Ser	Leu	Thr	Leu 445	Gln	Gly	Leu	Gly	Ile 450
Ser	Trp	Leu	Gly	Leu 455	Arg	Ser	Leu	Arg	Glu 460	Leu	Gly	Ser	Gly	Leu 465
Ala	Leu	Ile	His	His 470	Asn	Thr	His	Leu	Cys 475	Phe	Val	His	Thr	Val 480
Pro	Trp	Asp	Gln	Leu 485	Phe	Arg	Asn	Pro	His 490	Gln	Ala	Leu	Leu	His 495
Thr	Ala	Asn	Arg	Pro 500	Glu	Asp	Glu	Cys	Val 505	Gly	Glu	Gly	Leu	Ala 510
Суѕ	His	Gln	Leu	Cys 515	Ala	Arg	Gly	His	Cys 520	Trp	Gly	Pro	Gly	Pro 525
Thr	Gln	Суз	Val	Asn 530	Cys	Ser	Gln	Phe	Leu 535	Arg	Gly	Gln	Glu	Cys 540
Val	Glu	Glu	Cys	Arg 545	Val	Leu	Gln	Gly	Leu 550	Pro	Arg	Glu	Tyr	Val 555
Asn	Ala	Arg	His	Cys 560	Leu	Pro	Cys	His	Pro 565	Glu	Cys	Gln	Pro	Gln 570
Asn	Gly	Ser	Val	Thr 575	Cys	Phe	Gly	Pro	Glu 580	Ala	Asp	Gln	Cys	Val 585
Ala	Cys	Ala	His	Tyr 590	Lys	Asp	Pro	Pro	Phe 595	Cys	Val	Ala	Arg	Cys 600
Pro	Ser	Gly	Val	Lys 605	Pro	Asp	Leu	Ser	Tyr 610	Met	Pro	Ile	Trp	Lys 615
Phe	Pro	Asp	Glu	Glu 620	Gly	Ala	Cys	Gln	Pro 625	Cys	Pro	Ile	Asn	Cys 630
Thr	His	Ser	Cys	Val 635	Asp	Leu	Asp	Asp	Lys 640	Gly	Cys	Pro	Ala	Glu 645